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**CBO STUDY ON THE B-1B BOMBER AND
POTENTIAL ENHANCEMENT PROGRAMS**

The United States completed deploying 100 new B-1B bombers earlier this year. The B-1B has many special features intended to enhance its ability to penetrate Soviet air defenses and attack targets. Reported deficiencies in the B-1B, however, have cast doubt on its ability to perform that mission, raising questions about how the bombers should be employed and what enhancements, if any, the Congress should fund. A study by the Congressional Budget Office (CBO), *The B-1B Bomber and Options for Enhancements*, prepared at the request of the House Committee on Armed Services, assesses the reported deficiencies in the B-1B and analyzes alternative programs for enhancement.

Four major problems decrease the B-1B's ability as a penetrating bomber. Most important, recent tests have shown that the defensive avionics system (designed to protect the B-1B by locating, identifying, and jamming enemy radars) performs poorly in a high-threat environment. Other major problems include a limited range during terrain-following flight at low altitude, a high rate of unnecessary "flyups" during such flight, thereby wasting fuel and exposing the B-1B to enemy radars, and, finally, inadequate logistical support which reduces the availability of the B-1B for missions.

The Air Force is making substantial progress in resolving many of these problems, with the exception of the B-1B's defensive avionics system. The inadequate performance of that system has focused attention on alternative uses of the B-1B and options for enhancing the bomber's performance. The key decision is whether the United States wishes to have a bomber that can penetrate the Soviet Union, or a "standoff" bomber that attacks targets using long-range cruise missiles. The many arguments surrounding this important choice could also affect requirements for the expensive B-2 "stealth" bomber.

One group of enhancements would improve the B-1B's support systems for communication, navigation, and carrying weapons. This group, which would cost about \$1.7 billion, would be consistent with using the B-1B either as a penetrating bomber or as a standoff bomber. A second group, costing about \$90 million, would make two minor modifications to enable all B-1Bs to carry cruise missiles. The third and fourth groups would improve the B-1B as a penetrating bomber: the third increases its survivability and the fourth its flexibility. These two options are by far the most expensive--about \$3.4 billion and \$2.7 billion, respectively.

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